

U.S. Serial No. 09/921,921
Reply to OA dated July 26, 2005

Att. Docket No. 740819-000595

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1 - 10 Cancelled

11. (Currently Amended): An outgas collection method comprising the steps of:
 holding, at a lower side of an exposure chamber under vacuum, a substrate on which a resist film is formed;
 irradiating said resist film with an electron beam provided from an electron beam source placed at an upper side of said exposure chamber;
 collecting an outgas at a collection unit connected to said exposure chamber; and
 absorbing said outgas at said collection unit,
 wherein said outgas is released from said resist film when said resist film is fully irradiated with said electron beam.
12. (Previously Presented): The outgas collection method of claim 11, wherein said collection unit has an absorption agent.
13. (Currently Amended): An outgas analysis method comprising the steps of:
 holding, at a lower side of an exposure chamber under vacuum, a substrate on which a resist film is formed;
 irradiating said resist film with an electron beam provided from an electron beam source placed at an upper side of said exposure chamber;
 collecting an outgas at a collection unit connected to said exposure chamber;
 absorbing said outgas at said collection [u it] unit; and
 analyzing a plurality of constituents of absorbed outgas at an analysis unit connected to said collection unit,
 wherein said outgas is released from said resist film when said resist film is fully irradiated with said electron beam.
14. (Previously Presented): The outgas analysis method of claim 13, wherein said collection has an absorption agent.

U.S. Serial No. 09/921,921
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Am. Docket No. 740819-000595

15. (Previously Presented): The outgas analysis method of claim 13, wherein said plurality of constituents of said outgas are analyzed by a gas chromatograph mass spectrometer.
16. (Previously Presented): The outgas analysis method of claim 13, wherein said outgas is absorbed in an activated carbon placed in said collection unit, and
said plurality of constituents are released from said outgas by heating said activated carbon after collecting and before analyzing.
17. (Currently Amended): An outgas analysis method comprising the steps of:
holding, at a lower side of an exposure chamber under vacuum, a substrate on which a resist film is formed;
irradiating said resist film with an electron beam provided from an electron beam source placed at an upper side of said exposure chamber; and
analyzing a plurality of constituents of an outgas,
wherein said outgas is released from said resist film when said resist film is fully irradiated with said electron beam.
18. (Previously Presented): The outgas analysis method of claim 17, wherein said plurality of constituents of said outgas are analyzed by a gas chromatograph mass spectrometer.
- 19 - 21 Canceled
22. (Currently Amended): An electron beam aligner comprising:
an exposure chamber;
a substrate holder placed in a lower side of said exposure chamber under vacuum;
a substrate having a resist film, placed on said substrate holder;
a collection unit connected to said exposure chamber; and
an analysis unit connected to said exposure chamber,
wherein an outgas released from said resist film, when said resist film is fully irradiated with [said] an electron beam, is collected at said collection unit, and
a plurality of constituents of said outgas are analyzed at said analysis unit.

U.S. Serial No. 09/921,921
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Att. Docket No. 740819-000595

23. (Previously Presented): The electron beam aligner of claim 22, wherein said collection unit has an absorption agent.
24. (Previously Presented): The electron beam aligner of claim 22, wherein said analysis unit has a gas chromatograph mass spectrometer.
25. (Previously Presented): The electron beam aligner of claim 22, wherein said outgas includes isobutene.
26. (Amended): An electron beam aligner comprising:
an exposure chamber;
a substrate holder placed in a lower side of said exposure chamber under vacuum;
a substrate having a resist film, placed on said substrate holder;
an electron beam source placed at an upper side of said exposure chamber; and
an analysis unit connected to said exposure chamber,
wherein a plurality of constituents of an outgas released from said resist film, when said resist film is fully irradiated with said electron beam, are [analysis] analyzed at said analysis unit.
27. (Previously Presented): The electron beam aligner of claim 26, wherein said collection unit has an absorption agent.
28. (Previously Presented): The electron beam aligner of claim 26, wherein said analysis unit has a gas chromatograph mass spectrometer.
29. (Previously Presented): The electron beam aligner of claim 26, wherein said outgas includes isobutene.